

# Realising 'Digital India' through its different Pillars

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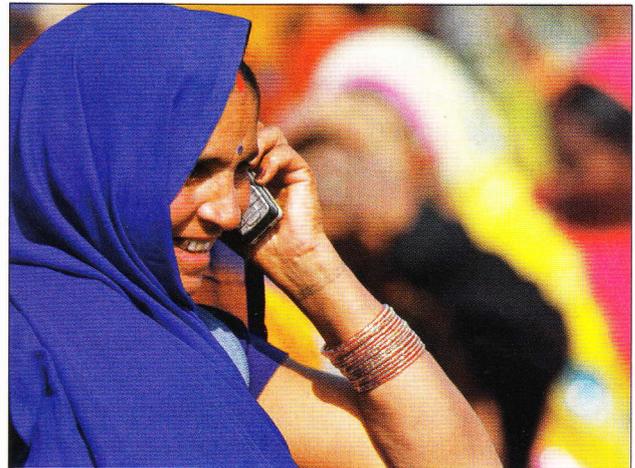
The Digital India programme has been recognised to have a transformational effect on the India's Digital landscape as well as the economic scenario of the country. By bridging the digital divide in India, it is possible for the country to alleviate major sections of the society and leverage the underlying potential to achieve a global leadership status. With the advent of the pandemic, economic and technological disruptions has ensued the world and India has been at the center stage in terms of the COVID-19 response measures. Considering the enormous size of the country, digitally connecting the remotest villages of the country – through broadband and high-speed internet – is one of the crucial infrastructure necessities of the nation.

**T**he Digital India programme has emerged not only as an initiative but also as an aspiration for the country. As per the Ministry of Electronics and Information Technology, it is a 'flagship programme of the Government of India with a vision to transform India into a digitally empowered society and knowledge economy'<sup>1</sup>. The enormous expanse of the Digital India programme has pitched it, as an integrative force which would transform the society by technologically empowering the people and consequently, elevating their standard of living. The vision areas under this programme, as delineated by the Ministry, include 'Digital Infrastructure as a Core Utility to Every Citizen', 'Governance and Service on Demand' and 'Digital Empowerment of Citizens'.

Considering the enormous size of the country, digitally connecting the remotest villages of the country – through broadband and high-speed internet – is one of the crucial infrastructure necessities of the nation. Under this programme, the government aims to provide high speed internet connectivity across the length and breadth of the country. In addition, it also aims to establish and leverage the unique identity (Aadhar) as a mode to ensure digital identity, financial inclusion, and easy access to the Common Services Centres (CSCs).

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to the masses. The Digital India Programme took one step ahead and aspired to provide seamlessly integrated services across departments or jurisdictions by adopting a single window framework. It also promotes the use of Open source and Open API, to ensure interoperability of all e-governance applications and provide access to data and services for promoting participation of citizens. The Unified Payments Interface could be considered a pathbreaking development, which is an example of open source application and proved to be a pivotal step for India towards becoming cashless.

Digital Literacy is widely recognised as a key element necessary to successfully implement the eGovernance initiatives under the Digital India programme. With over one billion people in India, there is an immediate need to promote digital literacy platforms and leverage the underlying potential of India. The CSC and the CSC 2.0 schemes are aimed towards creating a huge self-sustaining network of CSCs spread across India. The CSCs would be responsible for carrying out standardisation of services and capacity building of stakeholders.

## 1. Broadband Highways

Internet being evolved as one of the basic necessities of the modern life, ensuring access to broadband, has been a key responsibility of the Government. Considering the large size and population of India, a comprehensive plan to establish the necessary infrastructure has been recognised and initiated under this pillar of the Digital India Programme. This pillar has three components including Broadband for rural, Broadband for urban and National Information Infrastructure. Over 2,00,000 village panchayats are being brought under the ambit of the National Optical Fibre Network under the Broadband for Rural project. Under the Broadband for Urban project, the Ministry aims to utilise Virtual Network Operators for service delivery and communication infrastructure. The National Information Infrastructure aims to integrate India's Network and cloud infrastructure to facilitate high speed connectivity as well as cloud platform for different government entities. The NII includes the include networks such as State-Wide Area Network, National Knowledge Network National Optical Fibre Network, Government User Network and the MeghRaj Cloud.

## 2. Universal Access to Mobile Connectivity

The rapidly growing smartphone penetration and consistently declining data rate have

provided a boost to the mobile connectivity across India. Mobile Phones have moved ahead from being a mode of communication to become a source of information and connectivity. Under this pillar, the Ministry aims to connect over 50,000 villages which do not have mobile coverage, with an aim to bridge the digital divide. As a part of the Digital India Programme, the Ministry has been providing mobile coverage to uncovered villages. Mobile coverage to remaining uncovered villages would be provided in a phased manner. The Department of Telecom has been assigned as the Nodal Agency for this project.

## 3. Public Internet Access Programme

The Public Internet Access Programme aims to establish the infrastructure mechanisms for enabling access to public internet for the common people. The Public Internet Access Programme focused mainly two components including CSCs and transforming Post Offices as multi-service centres. Under the Digital India programme, the Ministry under the CSC 2.0 project aims to establish a self-sustaining network of 2.5 lakh CSC centres at gram panchayat level. Around 150,000 post offices are proposed to be converted into multi service centres and this project is being driven by the Department of Posts. Considering the expanse of presence of post offices, this project could have a huge

### Pillars of Digital India



transformational effect on the public internet access programme.

**4. e-Governance - Reforming government through Technology:** Using technology to improve governance mechanism and service delivery has had a transformational impact on the people all across the world. The Government of India has recognized the eGovernance as the way forward and the Ministry has been striving to ensure effectiveness of government services across different domains offered by line ministries. Under this pillar, the government has different focus areas including form simplification and form reduction, online applications and tracking, online repositories and integration of services and platforms. This programme also aims to transform the workflow inside the government departments to enable efficient government processes and also to allow visibility of these processes to citizens. The Digital India programme, under this pillar, has also established the Traditional Development of Indian Languages Programme, to facilitate human-machine interactions in Indian languages.

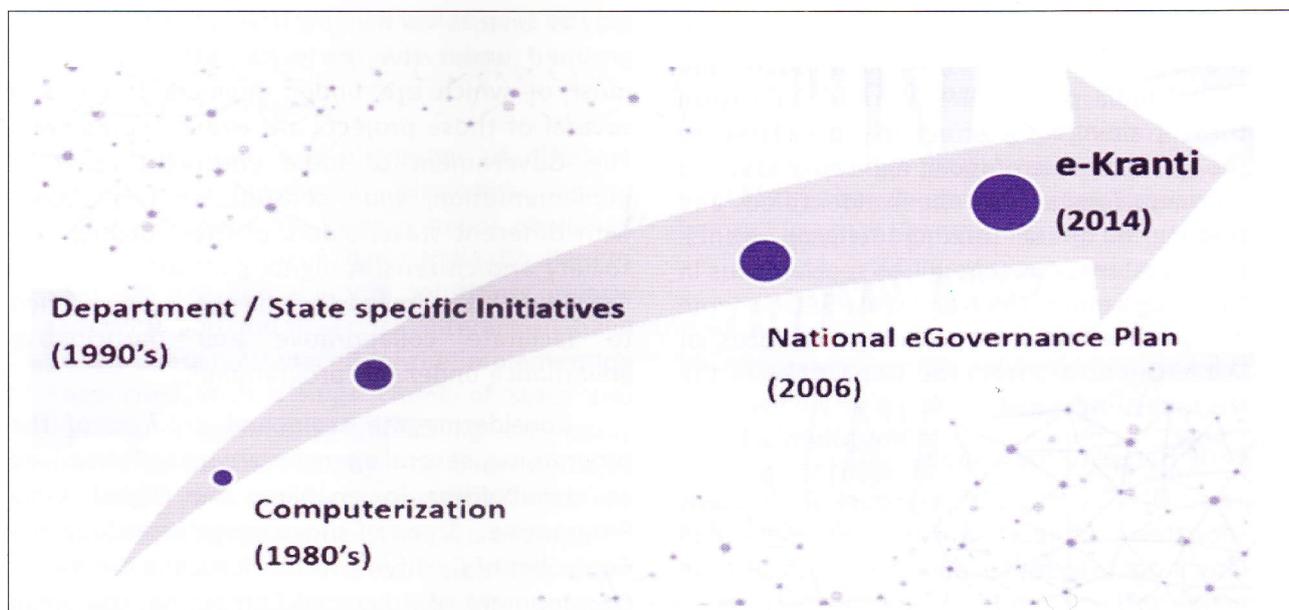
**5. e-Kranti, Electronic delivery of Services**

Over the years, the Government of India has been consistently focusing on eGovernance and leveraging the digital platforms/ technologies. The National e-Governance Plan was the first step towards making government services accessible to the common man, through service delivery

outlets, to transparency and reliability of services at an affordable price. Under this pillar, the Digital India programme has identified 44 mission mode programs which have been grouped under Central, State and Integrated projects. The major focus areas include banking, income tax, transport, commercial taxes, financial inclusion and so on. This pillar also aims to leverage technology in transforming different domains with different projects such as Technology for Education, Technology for Health, Technology for Farmers, Technology for Security, Technology for Justice, Technology for Financial Inclusion and Technology for Cyber security.

**6. Information for All**

This pillar aims to ensure transparency and availability of reliable data generated by the line ministries for use, reuse and redistribution for the people of India. The open data platform has been developed by the Ministry for online hosting of information and documents is facilitating easy access to information for citizens. Under this pillar, government aims to pro-actively leverage the social media and web-based platforms to inform and interact with citizens. The Mygov platform is a significant step towards ensuring governance and promoting government-citizen interactions. By developing these platforms India, has taken significant strides



towards ensuring transparency and accessibility of information to the citizens of India.

## 7. Electronics Manufacturing

Electronics are deemed as the backbone of technology development for a company. And technology is increasingly recognised as a key contributing factor for economic development. Due to the high capital and operational expenditure, electronics manufacturing in India has not taken off. The Ministry has been trying to change this scenario by bringing policy interventions to draw global interest for electronics manufacturing in India. In order to effectively achieve this target, it is crucial to establish a robust electronics ecosystem. The major focus areas under this pillar include FABS, Fab-less design, Set top boxes, VSATs, Mobiles, Consumer and Medical Electronics, Smart Energy meters, Smart cards and micro-ATMs. The recent policies including Scheme for Promotion of Manufacturing of Electronic Components and Semiconductors (SPECS), Production Linked Incentive Scheme (PLI) for Large Scale Electronics Manufacturing and the Modified Special Incentive Package Scheme (M - SIPS) have been monumental in strengthening the electronics in India.

## 8. IT for Jobs

The IT/ITeS sector is one of the most promising sectors for the Indian economy. This pillar focuses on skill development of the Indian youth in rural and urban areas for making them skilled for the IT/ITeS sector. Setting up of BPOs and providing IT trainings has been the biggest focus of this pillar under the Digital India programme. In order to ensure these trainings are effectively translated to the young people of India, a group of training delivery agents have been identified and training of these training delivery agents. Northeastern states are given special focus in this programme. The North East BPO Scheme has been established to bring the focus of the BPO industry from the Tier-1 cities to the Northeastern states.

## 9. Early Harvest Programmes

This pillar consists of a group of different short-term projects which have immediate effect on the Indian digital ecosystem. The major projects under this pillar include IT

platform for mass messaging, crowd sourcing of eGreetings, biometric attendance in the government offices, WI-FI in all universities, secure email within government, standardise government mail design, public Wi-Fi hotspots, Schools books to be ebooks, SMS based weather information/ disaster alerts and national portal for lost and found children.

## Implementation

The Ministry of Electronics and Information Technology has been the nodal agency for

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several projects, along with the Department of Telecommunications to ensure time-bound implementation of the different projects under aforementioned pillars. The Digital India programme had not only launched new initiatives, but it had leveraged the existing initiatives for better optimisation of efforts. The existing schemes are expected to be restructured, revamped and re-focused, to confirm alignment to the objectives of the Digital India Programme. The projects which may be seen as low hanging fruits are being already grouped under the 'Early Harvest Programme', most of which are under implementation and several of those projects are already completed. The Government of India ensures that while implementation, wide consultation takes place with different stakeholders in the industry, civil society and citizens. A digital platform named as "myGov" (<http://mygov.in/>) has been established to facilitate collaborative and participative governance under this programme<sup>2</sup>.

Considering the scale and expanse of the programme, several agencies are actively involved as stakeholders in enabling the Digital India Programme. Some of those agencies include the Controller of Certifying Authorities, the Centre for Development of Advanced Computing, the Small



Farmers Agribusiness Consortium, the Department of Financial Services, the Department of Industrial Policy and Promotion, the Department of Science & Technology, the National Health Mission, the National Informatics Centre and so on<sup>3</sup>.

### Challenges

As it is quoted for in defense circles 'No plan sustains the first impact', a programme like Digital India, which is supposed to have a transformational impact on the society, had also faced several challenges including technical, organisational and economic challenges. In order to better understand the challenges, it is important to expand on the specific challenges, which are given below:

#### 1. Technical Challenges

The integration and alignment of different networks, interfaces/ platforms across different states has been a major challenge in implementation of Digital India. Challenges such as interoperability of solutions, privacy, security and multi service interaction have been consistently faced by the implementing agencies. With a huge chunk of state and central government functioning on legacy systems, interoperability has been a major concern. With ever increasing digital interface and booming data generation, it is anticipated that the digital infrastructure would be more exposed to privacy and security threats.

Digital illiteracy is another major challenge which has prevented the effective utilisation of the projects.

#### 2. Organisational Challenges

With several central and state entities in play, ensuring coordination and communication is a key to optimise national efforts towards bridging the digital divide of India. Lack of highly skilled individuals, huge population, presence of different languages and the distributed control of subject between the state and the Center, are recognised as the major challenges in the implementation of the programme.

#### 3. Economic Challenges

The scale of the Digital India programme warrants huge budget outlay, which has been a major challenge in the implementation of the programme. With limited project funding, it becomes difficult for implementing agencies to completely achieve the desired objectives of a project. The transmission of COVID-19 pandemic has not only affected the health of the common people, but it has also disrupted the multitude of ongoing projects which is a huge setback for the entire programme.

### Way Forward

The Digital India programme has been recognised to have a transformational effect

By bridging the digital divide in India, it is possible for the country to alleviate major sections of the society and leverage the underlying potential to achieve a global leadership status. With the advent of the pandemic, economic and technological disruptions has ensued the world and India has been at the center stage in terms of the COVID-19 response measures. However, it is imperative for India to effectively and dynamically evolve the Digital India programme into a nationwide movement which would not only interventions from the government, but the industry and the academia of the country.

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### 1. Improving the Regulatory Framework

A robust regulatory framework has to been developed by the government to ensure wide spread adoption of digital services and platforms. A recent example of such intervention could be noticed in the mandating the use of AarogyaSetu, which facilitated contact tracing in the pandemic. Regulatory clarity and transparency is pivotal to establish a robust regulatory ecosystem.

### 2. Effective Implementation of Projects

In order to ensure effective implementation of projects, the government has to focus on two aspects namely, the skill enhancement of its workforce and the futuristic planning of the projects. It is an imperative for the implementing agencies to have highly skilled manpower, which has the capability to address any bottlenecks in the projects. In addition, it is particularly important to adopt agile

implementation practices to make projects upgradable and scalable.

### 3. Optimisation of Resources

Adequate feedback and monitoring mechanisms have to be put in place in order to recognise and address any futile/suboptimal use of resources such as manpower, budgets, private sector fund, etc. An output-outcome based monitoring framework effectively highlights the issues and thus, such a framework must be developed for individual project and the programme.

### 4. Bridging the Digital Divide

Digital illiteracy is a major roadblock in reaping the benefits of the Digital India Programme. A major effort to create awareness about the Digital India programme in addition to the digital education and information dissemination initiatives of the programme. While design and development of the digital product/service, the government should confirm its compatibility in terms of language. In addition, factors such as ease in user experience must also be taken into account.

### 5. Driving Inclusive Participation in Projects

As it has been widely accepted, inclusive efforts with participation of industry and academia are crucial to the widespread success of the Digital India Programme. In addition, Public Private Partnership models may also be explored for sustainable development of digital infrastructure. Tax incentives and quicker clearances of projects could also facilitate the implementation of the Digital India Programme.

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